

FIG. 1

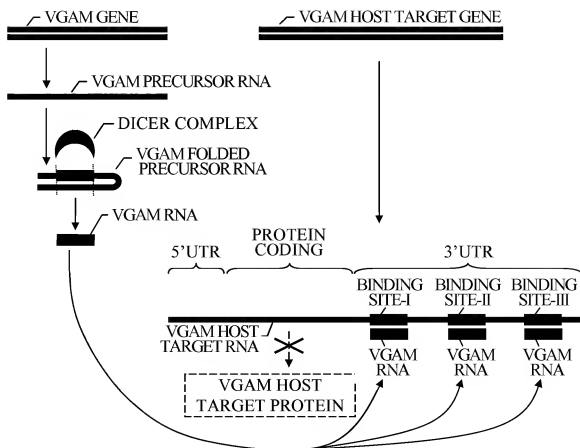


FIG. 2

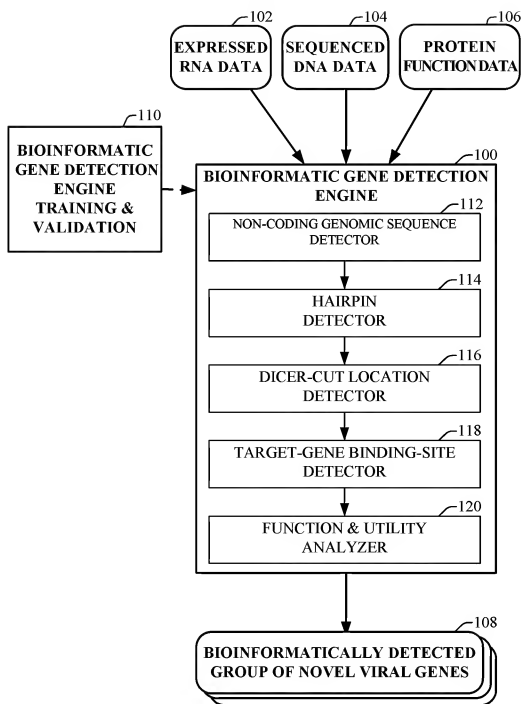


FIG. 3

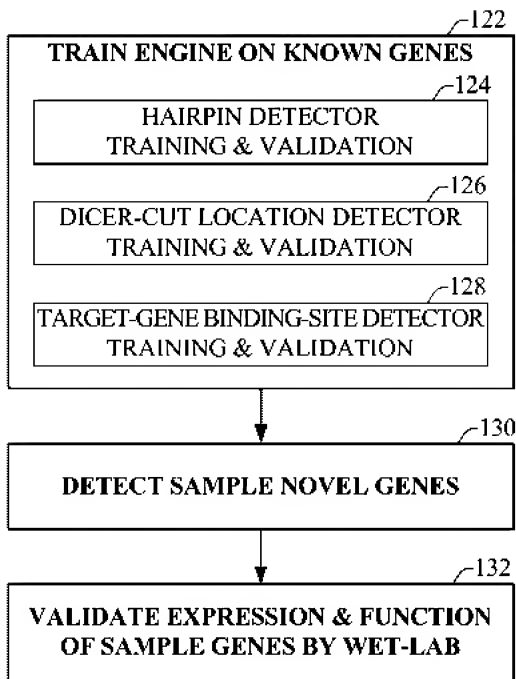


FIG. 4A

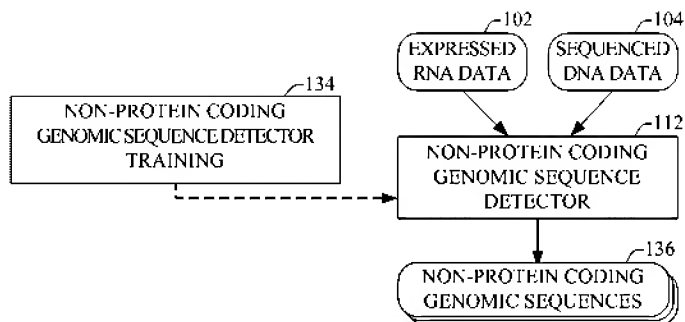


FIG. 4B

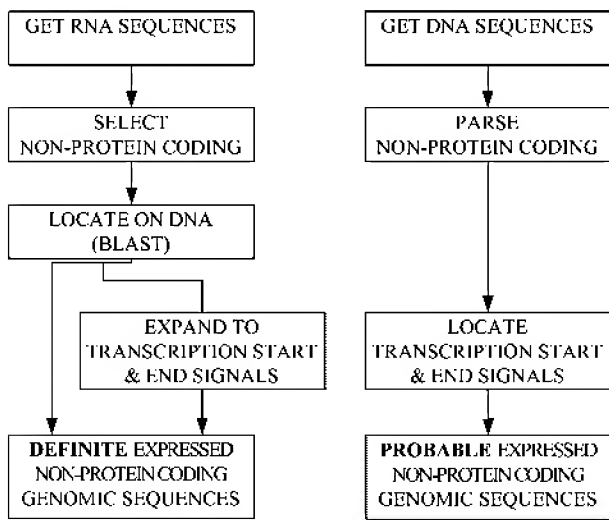


FIG. 5A

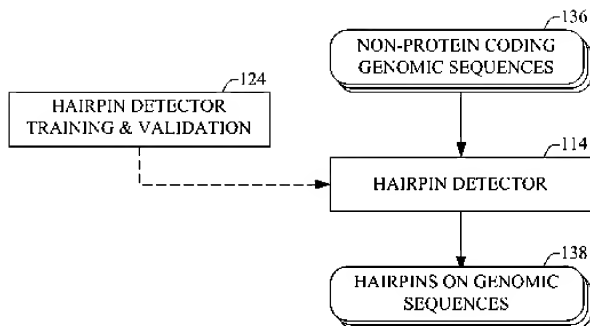


FIG. 5B

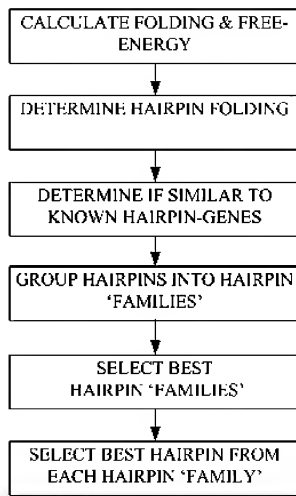


FIG. 6A

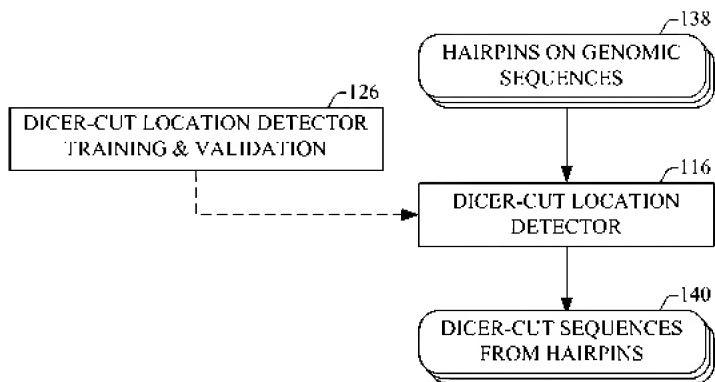


FIG. 6B

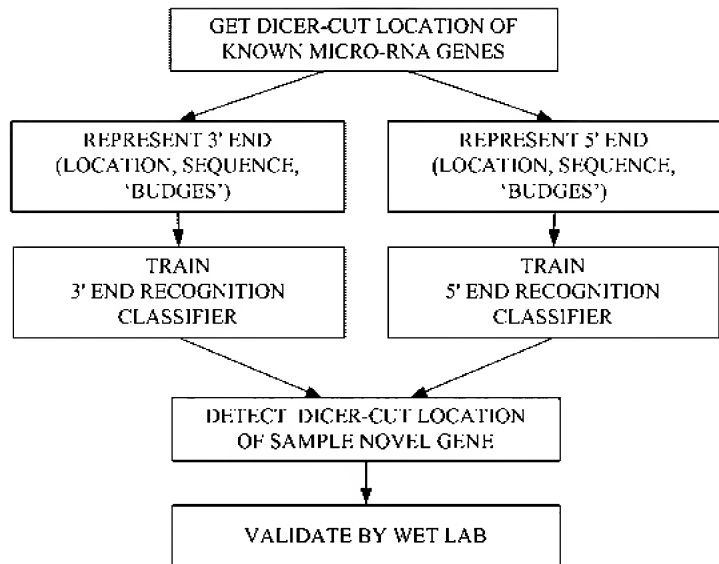


FIG. 6C

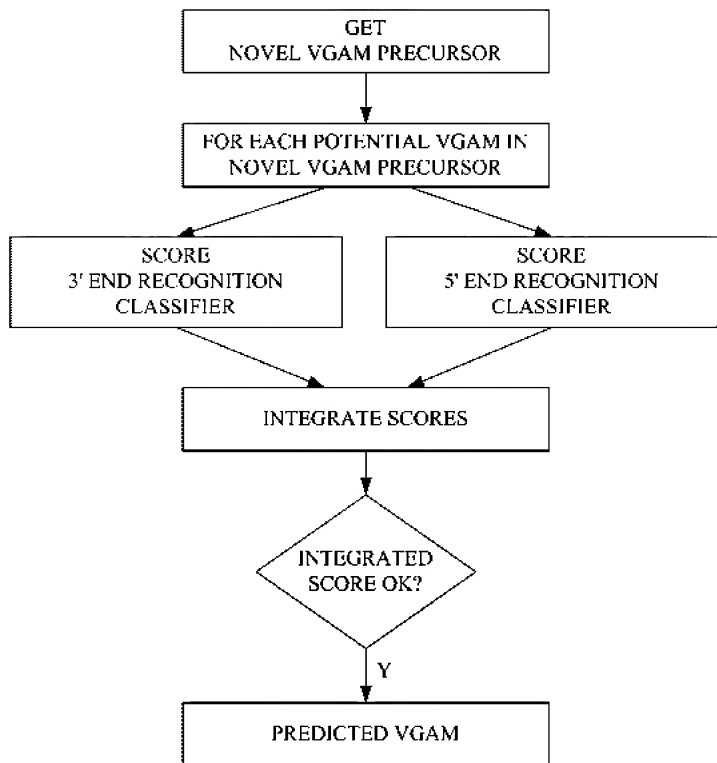


FIG. 7A

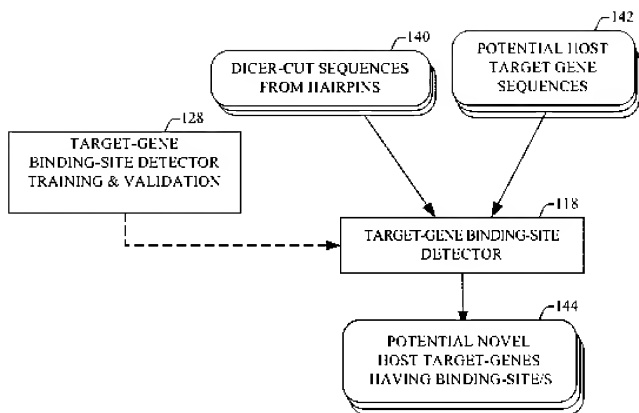


FIG. 7B

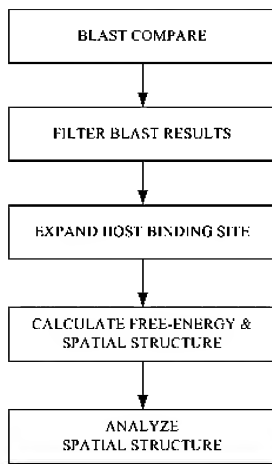
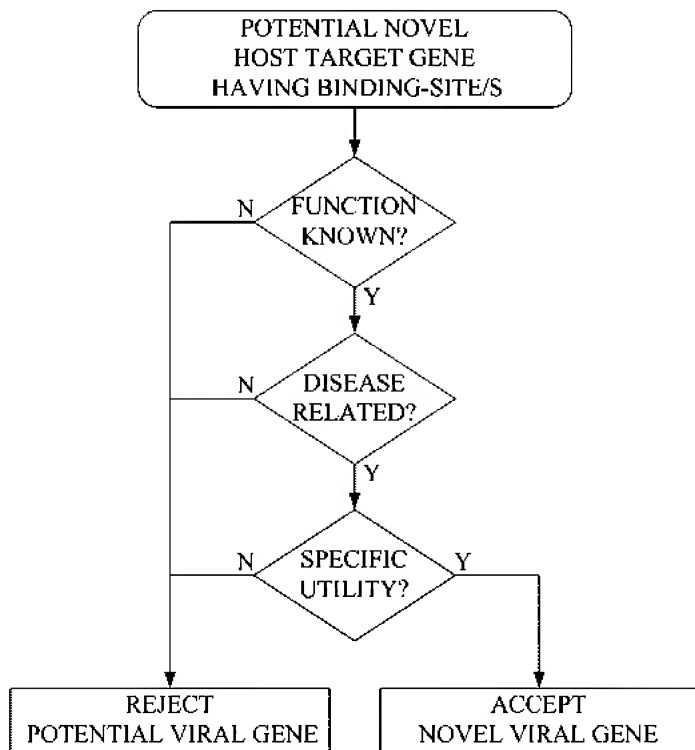


FIG. 8



The diagram illustrates the proposed mechanism of VGAM3 RNA-mediated gene silencing. It begins with the **VGR GENE**, which is transcribed into **VGR PRECURSOR RNA**. This precursor is then folded into **VGR FOLDED PRECURSOR RNA**. The folded precursor is processed into three separate RNA molecules: **VGAM1 RNA**, **VGAM2 RNA**, and **VGAM3 RNA**. Each of these RNA molecules binds to a specific target RNA (**VGAM1-HOST TARGET RNA**, **VGAM2-HOST TARGET RNA**, and **VGAM3-HOST TARGET RNA**) at a **BINDING SITE**. This binding leads to the formation of a complex that results in the silencing of the target gene, as indicated by the 'X' marks and the dashed boxes labeled **VGAM1-HOST TARGET PROTEIN**, **VGAM2-HOST TARGET PROTEIN**, and **VGAM3-HOST TARGET PROTEIN**.

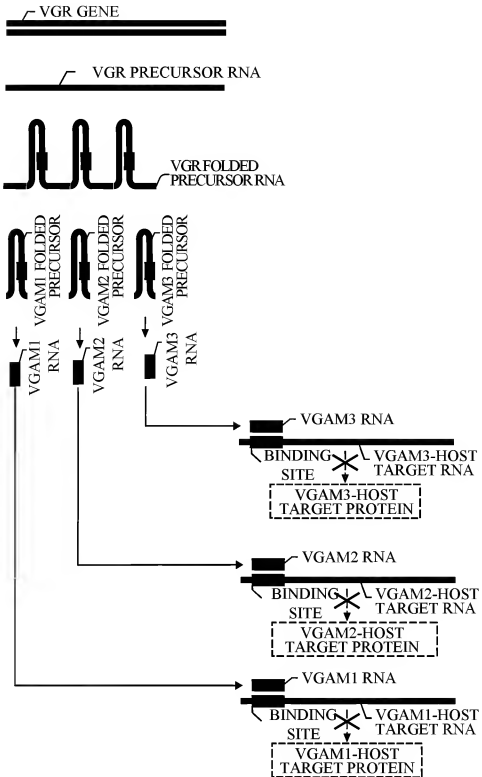


FIG. 10

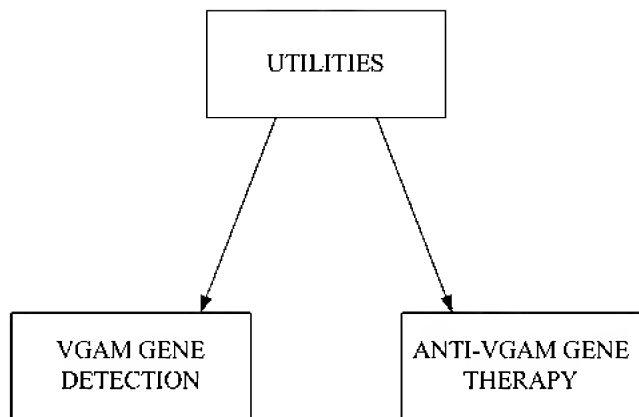


FIG. 11A

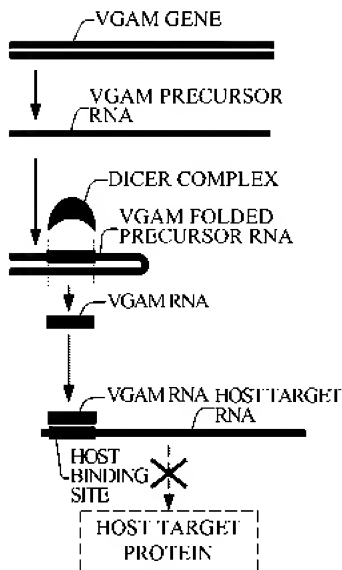
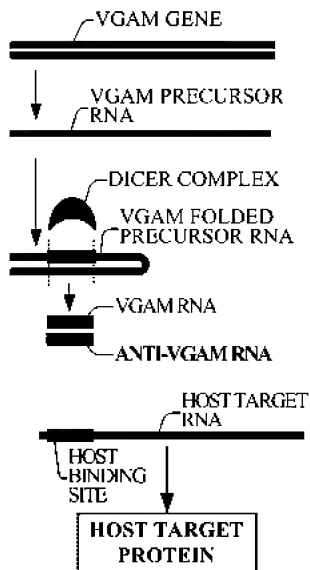


FIG. 11B



EST72223 sequence:

FIG. 12A

CCCTTATTAGAGGATTCTGCTCATGCCAGGGTGAGGTAGTAAGTTGT
 ATTGTTCTGGGGTAGGGATATTAGGCCCAATTAGAACATAACTAT
 ACAACTTACTACTTTCCCTGGTGTGTGGCATATTCACACTTAGTCTTA
 GCACTGTTGCCTCCATCAGACAAAAGTTGTAGATGTTCCCTGGATAATT
 TGGACTGGAGAAAGAGACATGGAAGGGGACAGATGGTGTATTAGG
 GTGAGGCAGATGTCATTATAAAGTGAATTTGCTTTTCAATTGGAGC
 ATATAATTATTTACCTTTGGCATGAACCTATTTGCTATTCTTCAAC
 TGTGTAATGATTGCATTTTATTAGTAATAGAACAGGAATGTGTGCAAG
 GGAATGGAAGCATACTTTAAGAATTTTGGGCCAGCGCGGTGGTTCT
 ATGCCTGTAATCCAGCATTTTTTGGGAGGCCGAGGCCGGGTGGATCA
 CCTGAGGTCAGGAGTTCGAGACCAACCTGGCCAACACGGCGAAACC
 CCGCCTCTACTCAAATACAAAATTAGCCAGGCTTGGTGACACTCGC
 CTGTGGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATTGCTTGA
 ACCCAGGAAGTGGAGGCTTCAGTGAAGCTGAGAACACGCCACTGCA
 CTCCAGTCTCTGGGCAACAGAGCAAGACTCTGTCTCAGGAAAAAAA
 AG

MIR98

GAM24

FIG. 12B

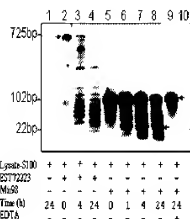
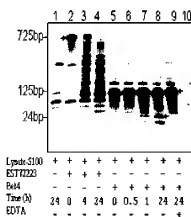


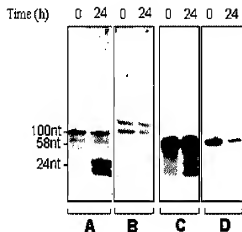
FIG. 12C



MIR98

GAM24

FIG. 12D



dbEST Id. 7929020 (Image4514344) sequence:

SCAAAACTSGAAGCATTCCCTTTGAAAAGTGGCACAAGACAGGSGATGCCCTCT
 CTCACCCGCTCCCTATTCAACATAGCTTTGGAAGTTCTGCCCACGCCAATTAGGCA
 GGAGAAGGAAATAAAGSGTATTCAATTAGGAAAAGAGCAAGTCAAATTGTTCCCT
 TTTTSCAGATGACATGATTGTTATATCTAGAAAACCCCATTTSTCTCAGSCCCAAA
 TCTCCTTAAGCTGATAAGCAACTTCAGCAAAAGTCTCAGGATACAAAAATAAATGT
 ACAAAAATCACAGCATTCTTTACACACCAACACAGAAAAACAGAGCCAAATCA
 TSASTMACTCCCATTCACAATTGCTTCAAGAGATATAAATACCTAGSNAATCC
 AACTTACAAGCGATCTGAAGACCTCTTCAAGGAGAACTACAAAGCACTGCTCA
 AGSAAATAAAGAGGATACAAAACAAATGGAAGAACATTCCATGCTCATGSGTAG
 GAAGATCAATATTGTAAGATGSCCATACTGCCAAGGTAATTTACAGATTCA
 ATGCCATCCCCATCAAGCTACCAATGACTTTCTTCAACAGAAATGCCAAAAACTA
 CTTTAAAGTTCATATGGAACCAAAAAAGAGCCCGCATCGCCCAAGTCAATCCTAA
GCCAAAGAACAAAGCTGGAGGCATCACACTACCTGACTTCAAACTTTACTACA GAM23
AGGCTACAGTAACCAAAACAGCATGGTACTCGTACCAAAACACAGATATAGATC
AATGSAACASACAGAGCCCTCAGAAATAACGCCGAATACCTACAACTATCTGA
TCTTTACAAACCTGAGAAAACAGCAATGSGGNAAGGATTCCTATTTTAATA
AATGCTGCTGGCAAACTGACTAGCCATATGTAGAAAGCTGAAACTGGATCCCT
TCCTTACACCTTATACAAAAATCAATTCAAGATGAGATTAAAGATTTAAACSTTA
GACCTAAAACCATAAAACCCTAGAAGAAAACCTAGGCATTACCATTCAGGACA
TAGGCATGGCAAGCACTTTCATGTCCAAAACACCAAAAGCAATGCCAACAAAAG
ACAAATGACAAATGSGATCTAATTAAACTAAAGAGCTCTGCACAGCAAAAG
AACTACCATCAGAGTGAACAGGCAACCTACAAAATGGGAGAAAATTTTCGCAA GAM2
CCTACTCATCTGACAAAGGGCTAATATCCAGAATCTACAACTCAAAACAAA
 TTTACAAAAA

FIG. 13B

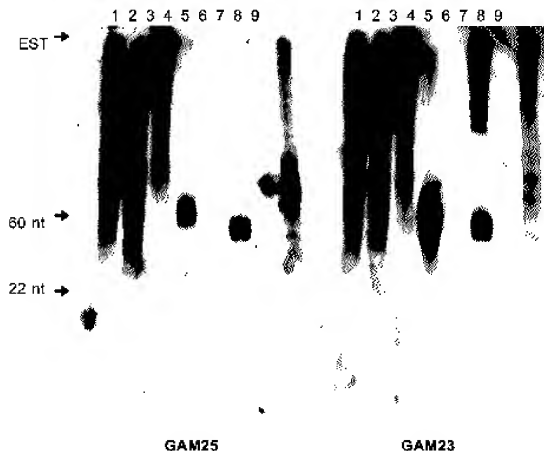
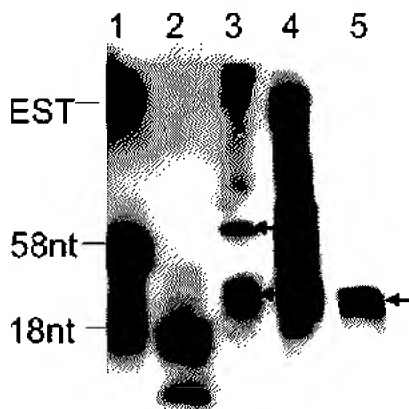


FIG. 13C



GAM25

ACTCCTATCAACAGTGTAAAAGCATTCTCTGTTTCTCCATAATCTTGCCAGCATCTT
 TTCATTTTTTTTGAATTATAGCCATTCTGACTCTTCTGAGATGCTCTCATTTCTGGC
 TTTTGATTGGCATTTCAGATGATCAGTGATGTTGAAGTTTTTTGTTTGTGGC
 TGCATGTATGCCCTCTTTTGAAGAAGTGTCTGTTTGTGTCTTTGACCACTTTCTAA
 TGCCGCTTGACTTTTTTTTTCTTGTATAAATTCTTTAAGTTCTCTTCTAGATCTGGAT
 ATTAGACCTTTGTGAGATGGATAGAGTGCAAAAATTTTCTCCCATTTCTGTAGGTTG
 TCGGTTTTACTCTGTTGATAGGTTCTTAATGCTGTGCAGAGAGCTCTTTAGTTTAATT
 AGATCCCATTCTCAATTTTGGCCTTTTCTTCCAATTGCTTTTGGCATCTTCGTCAT
 GAAATCTTTGGCCTTTGCCGTGTGTCTGAATGGCATTGCCTAGGTTTTCTTCCAGGA
 TTTTATATAGTTTTGGGTTGTAGATTTAAGTCTTTAATCCATCTTTGAGTTAACTTTT
 CTATATCGCTTAAGCAACGGGGCCCCCTTCAATTTGCTGCCAATGGCTAGCCAGTTC
 TCCCAGCACCATTTATTAATAGGGAAATCTTTTCCCCATTTGCTTCTTTTTGTCAAG
 TTTGTCAAAGATCACATGTTGTAGGTGTGTGTTCTTATTCTGGGTTCTCTATTCT
 TCTTCCATTGGGCTATGGCCGGCTTCTCTACCAACCACTATGCTCTTTTGGCTACCA
 TAGTCTTTGTAGAATGTTTGAAGCTGGGTAGCATGATGCCCTCTAGCTTTTGTCTTTCT
 TGCTAAGAAATGTCTTGGCTATTGGGCTCTTTTTGGTCCATATGAATTTTAAA
 ATAGCTTTTTCTAGCTCTCTTAAAGAAATCTGAATAGTAGTTTAATGGGCCTAGCATT
 TAATTTACAGATTGCCTTGGGCAGTGTGGTCATTTTCAAGATATTGATCCCTTCTGT
 TCTGTGAGCATATGTTTTTCCATTTGTTGTGTCATCTCTGATTTCTTTGAATAAT
GGTTTATAGTTATCCTTTGAAAAGGTCCTTCACCTTTCTTTGTTAGCTGTATTCCCTAG
ATATTATACTCTTCTTGTGGCAATTGTGAATGGGAGTTAATTCATGAGTTTTCTCT
 CGGCTTGCTGTGTTGTTGGTGTATAGGAATGCTAGTGACTTTTGCACATTGATTTTG
 TATCCTGACACTTTCTTGAAGTTGCTTATCAGCTAAGAAGTTTTTACGCTGAGATG
 ATGGAGTTTTCTAGATATAGGATCATATCATCTGCAACAAAGATAGTTTGACTTC
 CTGTCTTCTCTATTGAATAGCTTTTCTTTCTTCTCTTGGCTGATTGCCTTGGTGA
 GAATTTCTAATACCTCTTGAATACGACTGCTGACCTCGTCCCAA

GAM
26

FIG. 14B

1 2 3 4 5 6 7



← EST

← 130 nt

← 22 nt

GAM26